



DR-209 (VHF) DR-809 (UHF)

True Diversity Wireless Receiver

Operating Manual



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- 7.4. When a transmitter moves constantly, diversity indicator LED "A" or "B" will light up alternatively, indicating that tuner "A" and tuner "B" of the receiver are in normal operation. When either diversity indicator LED "A" or "B" light up steadily, indicating that the diversity performance is in abnormal operation.
- 7.5. When sound is applied to a microphone, LEDs of AF signal level indicator will light up according to the sound level, indicating that the audio output of the system is in normal operation. Both balanced and unbalanced AF output level can be adjusted by volume control. Unbalanced output level of the receiver can be changed into either "Line" or "MIC" level by using the MIC / LINE selector.
- 7.6. Audio output level must be adjusted to match a proper input level of the mixer. If output of the receiver is adjusted too high or volume control of the mixer is set too low, output distortion will be heard.
- 7.7. After proper adjustment of output volume, adjust the volume control of either the mixer or amplifier to get a desired sound level output of the microphone.
- 7.8. Use SQ adjustor to adjust squelch level to prevent radio signal interference. optimum setting for squelch is preset by the factory, but it can be varied considerably according to the condition of use.
- 7.9. Power supply voltage can vary from 12-15V DC, and will not affect normal operation of the receiver.

8. CAUTION IN USE

- 8.1. Antennas greatly influence the receiving efficiency of the wireless microphone system. Proper set-up is very important. The shorter the better is the golden rule to keep distance between the wireless microphone and the receiving antenna.
- 8.2. To avoid mutual interference in multi-channel application, proper selection of channel frequencies is of utmost importance.
- 8.3. If the transmitter is not to be used for a long period, please remove the batteries.
- 8.4. Tuned circuit and variable resistor / capacitor inside a transmitter and receiver have been precisely adjusted, please do not make any unauthorised adjustment. Otherwise, normal operation will be interrupted.



1. GENERAL

DR-209 (VHF) / DR-809 (UHF) are quartz locked fixed frequency, Pilotone controlled true diversity receivers.

DR-209 / DR-809 are compatible with Chiayo Pilotone controlled Q (handheld) and M (Beltpack) series wireless microphones recommended as follow :

Receiver \ Microphone	Frequency	Handheld	Beltpack
DR-209	VHF	Q-209	M-200
DR-809	UHF	Q-809	M-800/M-809

DO NOT use transmitters (except modified or later models recommended by Chiayo) other than those recommended above as the frequency response of other transmitters might not be compatible with these receivers.

Non-compatible transmitter and receiver will result in bad audio quality !

1.1 System Configuration

If you purchase the complete system, your carton and packing should contain the following :

- Receiver : DR-209 * 1 or DR-809 * 1
- Transmitter : Compatible Handheld microphone * 1 or Beltpack transmitter * 1
- Accessories : 1.) AC adapter * 1
2.) Antenna * 2
3.) 1/4" phonejack cable * 1
4.) Operating manual

2. CONTROLS AND FUNCTIONS

2.1 FRONT PANEL

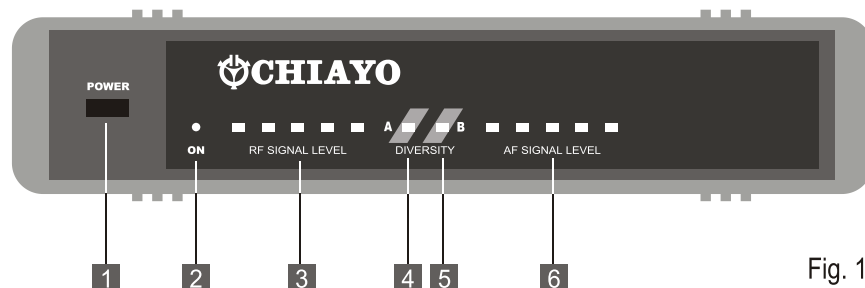


Fig. 1

1. POWER SWITCH

2. POWER ON LED

Power on LED will light up when power is switched on.

3. RF SIGNAL STRENGTH INDICATOR

As soon as signal is emitted from a compatible microphone, LEDs of the indicator will light up from left to right. Full scale means max. Strength. When only 2 RED LED light up, it means weak RF signal and signal dropout should be expected.

4. DIVERSITY "A" INDICATOR

LED A lights up indicating Tuner A is operating.

5. DIVERSITY "B" INDICATOR

LED B lights up indicating Tuner B is operating.

6. AF SIGNAL LEVEL INDICATOR

Indicates the audio signal level of the receiver.



6. INSTALLATION OF THE SYSTEM

To make sure that the system performs correctly, place the receiver at least 1m above the ground and at least 1m away from concrete walls or metal surfaces to prevent any reflection. The microphone should also be at least 1m away from the receiving antenna, as shown in fig. 10.

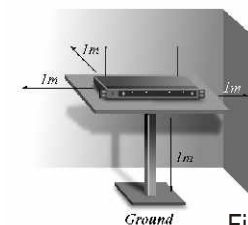


Fig.10

7. OPERATION OF THE SYSTEM

7.1. Turn volume control of the receiver as well as the mixer to be used to the minimum, then switch on the receiver. Power ON LED of the receiver will light up, and the AF signal level indicator will give a flash. The RF signal strength indicator will not light up when the microphone is not turned on. It is impossible to light up in this state, because a new excellent pilotone circuit design of this system prevents interference from spurious and noise signals. The receiver also could be switched off and on continuously without any shock noise.

7.2. When a transmitter is switched on, RF signal strength indicator LEDs and diversity indicator LED "A" or LED "B" of the receiver will light up, indicating that the system is in normal operation. When indicator LEDs of the receiver do not light up, indicating that the system may not be matched, both of the transmitter and the receiver should be checked if they are in normal operation.

7.3. When a transmitter is switched on at a distance within 15 meters away from the receiver, RF signal indicator LEDs of the receiver do not light up fully, or only the red LEDs light up, indicating that the system is matched but is in abnormal operation.

5. Beside joining two sets of receivers to form a 19" rack mountable system, the rack mount kit MP-50 could also be used with antenna front mount accessory to bring the rear antenna of a receiver to the front panel as shown in Fig.9 .
To do this, please order the antenna front mount accessory MP-12A. Join the receiver and MP-12A at the sides and connect them together by a MP-50 rack mount kit.

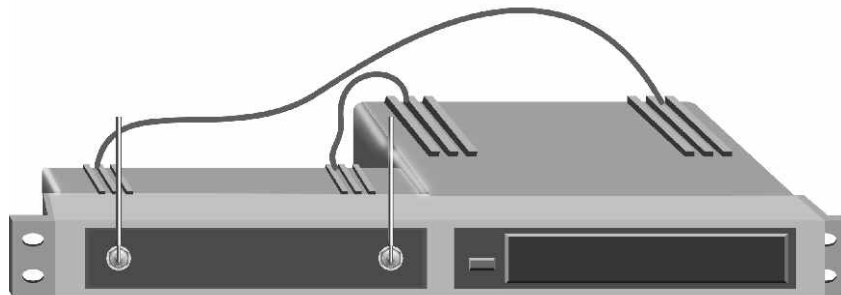


Fig.9



2.2. REAR PANEL

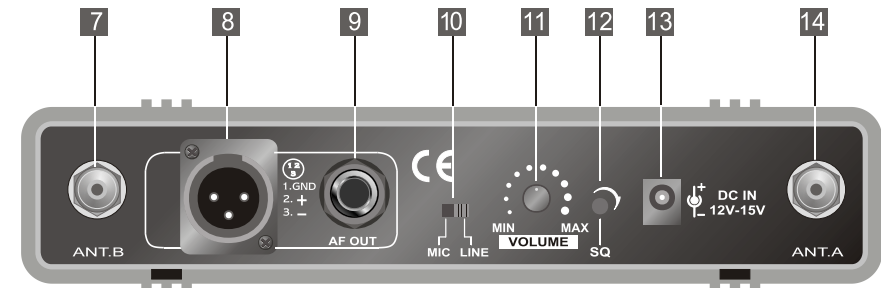


Fig. 2

7. ANTENNA "B" SOCKET

8. BALANCED AUDIO OUTPUT

This balanced output signal is for connection to the balanced " MIC IN " jack of mixer / amplifier.

9. UNBALANCED AUDIO OUTPUT

This Unbalanced output signal is for connection to the "LINE IN" jack of mixer / amplifier.

10. MIC / LINE LEVEL SWITCH

For selection of "MIC" or "LINE" level output for unbalanced output signal.

11. VOLUME CONTROL

For adjusting of audio output level of the receiver. Clockwise direction increases the output level.

12. SQUELCH CONTROL

For squelch (SQ) level adjustment, please take note that Max. SQ (clockwise till the end) means Min. Sensitivity. Min. SQ (anti-clockwise till the end) means Max. Sensitivity. When receiver receives an interference signal, please adjust the SQ in clockwise direction to make the receiver less sensitive till the interference signal disappear. If SQ is at max and interference signal still exist, it means the frequency is not suitable at the local environment, please change it to another frequency.

13. DC IN

A 12-15V DC external power supply or AC adapter could be connected o this socket. Please take note of the polarity.

14. ANTENNA "A" SOCKET

3. SINGLE CHANNEL CONFIGURATION

3.1. Install and tighten the two TNC antennas at the rear panel of the receiver, as shown in fig. 3.

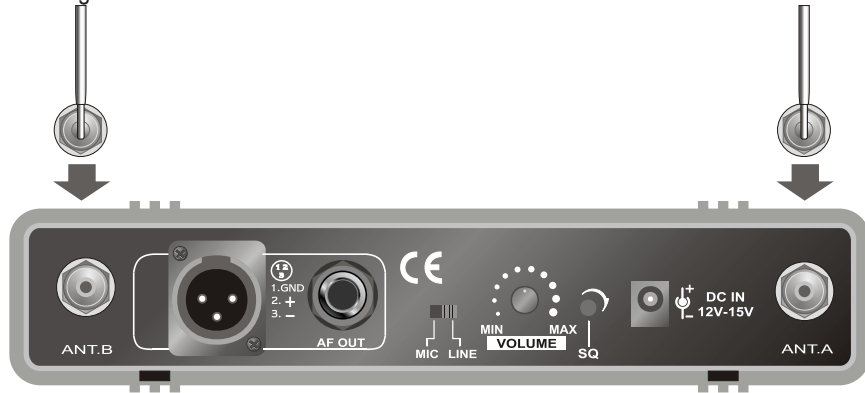


Fig. 3

3.2. Connect either the AF output of the receiver from balanced output to balanced "MIC IN" jack of the mixer / amplifier, or from unbalanced output to "LINE IN" jack of the mixer / amplifier, as shown in fig. 4 .

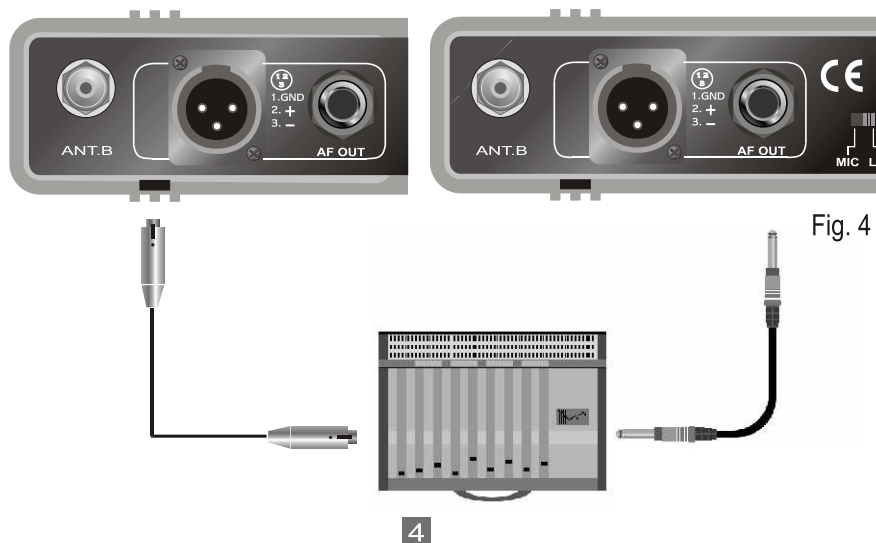


Fig. 4

3.3. Plug in one end of the AC adapter to the DC IN jack of the receiver and the other end of the adapter to the AC outlet as shown in Fig. 5.

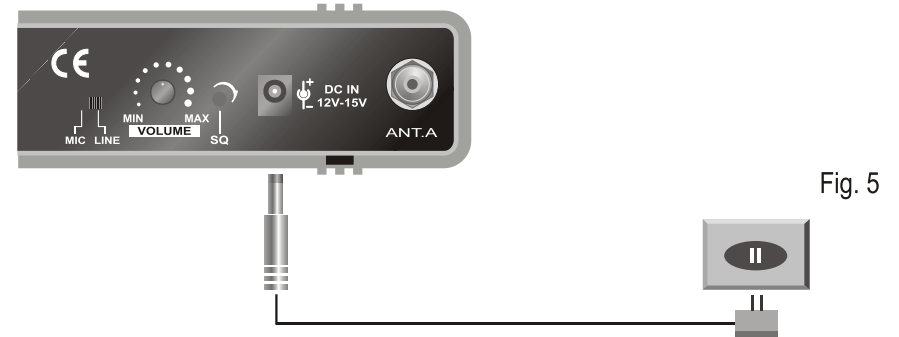


Fig. 5

4. Twin CHANNEL CONFIGURATION

DR-209 / DR-809 are half rack receivers. Two sets of them could be joined by a special rack mount kit (MP-50) to form a 19" rack mountable system.

To do this, first join the two sets of DR-209 or DR-809 at the sides and then mount the MP-50 rack mount accessories as shown in the following Fig.6 Fig.7 & Fig.8.

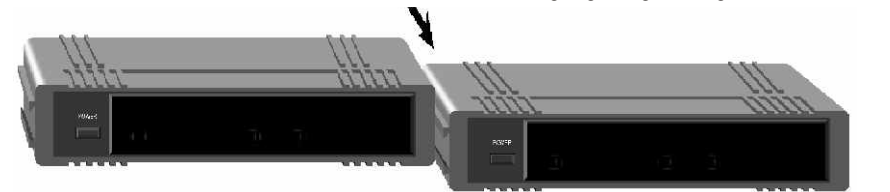


Fig. 6



Fig. 7



Fig. 8